

U. S. Application No. 10/518,886  
Attorney Docket No. 2002B096/2

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**REMARKS**

This reply is in response to the Final Office Action dated March 5, 2007 and the Advisory Action dated June 27, 2007. Claim 1 has been amended. Support is found on page 13.

Claims 1-5, 7, 11, 12, 14-18, 23, 24, 26-33, 35-41, 44, 45, and 47-52 are before the Examiner. The previous rejection under 35 USC § 102 has been withdrawn. According to the Advisory Action Claims 1-5, 7, 11, 12, 14-18, 23, 24, 26-33, 35-41, 44, 45, and 47-52 stand finally rejected under 35 U.S.C. § 103(a). The Advisory Action did not state whether the claims were still rejected for obviousness type double patenting in view of Tsou et al. (either US 6,875,813 or WO 2001/57340) hereafter "Tsou." Reconsideration of the rejections in view of the amendment is respectfully requested.

**Rejection under 35 USC § 103 (a)**

Claims 1-5, 7, 11, 12, 14-18, 23, 24, 26-33, 35-41, 44, 45, and 47-52 presumably stand rejected as obvious over Tsou US 6,875,813 or WO 2001-57340.

Applicant respectfully requests clarification. WO 2001/57340 is not a publication listing Tsou as an inventor directed to rubber blends. WO 2001/57340 is a synthetic panel for lining concrete building components (copy of first page attached). Perhaps the Examiner has cited the wrong number? Applicant respectfully requests the Examiner provide the correct publication number.

US 6,875,813 was issued on April 5, 2005. Applicant's priority date is July 17, 2002. US 6,875,813 is not available as prior art under 35 USC § 102 (a), (b) (c) or (d). Under 35 USC § 103(c) US 6,875,813 is not available as prior art under 35 USC § 103 if the subject matter and the claimed invention were at the time the claimed invention was made, owned by the same person, or subject to an obligation of assignment to the same person. Applicant's attorney confirms that US 6,875,813 and the instant application have at the time the claimed invention was made been owned by ExxonMobil Chemical Patents, Inc. and all inventors of US 6,875,813 and the instant application have all been subject to an obligation of assignment to the same

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person (ExxonMobil Chemical Patents, Inc). Evidence of this is provided by the recorded assignment of instant application (Reel 016629/ Frame 0282) to ExxonMobil Chemical Patents, Inc. and the face of US 6,875,813 which states that the patent is owned by ExxonMobil Chemical Patents, Inc. Thus, Applicant respectfully submits that US 6,875,813 is not available as prior art under 35 USC § 103 and the rejection should be withdrawn.

Rejection Under Obviousness type Double Patenting

Claims 1-5, 7, 11, 12, 14-18, 23, 24, 26-33, 35-41, 44, 45, and 47-52 presumably stand rejected on the ground of obviousness type double patenting as unpatentable over claims 1-24 of Tsou US 6,875,813. Applicant respectfully disagrees and submits the claimed invention is not obvious over Tsou. Tsou fails to disclose or suggest the specific combination of components and properties recited in the claims, namely an isoolefin elastomer, polybutene processing oil, ethylene/ $\alpha$ -olefin plastomer, and secondary blend rubber. Moreover, Tsou clearly does not disclose or suggest the specific combination of components, selected for their properties and in the proper proportions, to obtain the specified brittleness value, hardness, air permeability and adhesion characteristics. The data in the specification (see Tables 4, 5 and 6) demonstrate that these specified characteristics are not inherent from the Tsou disclosure as several comparative compositions containing the EXACT 8201 plastomer do not have the combination of characteristics specified. In this regard note examples 2-4 in the specification meet the generic disclosure of Tsou but, unlike example 5, fail to meet all of the specified component combination and brittleness/hardness/adhesion characteristics of the present claims.

Tsou fails to specifically disclose elastomer/plastomer/oil/blend rubber compositions that exclude greater than 0.2 wt% naphthenic/aromatic oils and have the brittleness/hardness/adhesion characteristics (claim 1); fails to specifically disclose air barrier compositions consisting essentially of elastomer, plastomer and polybutene oil (claim 24); and fails to disclose the specific formulation of 5-25 phr polybutene oil, halogenated star-branched butyl rubber, 5-25 phr natural rubber and 5-25 phr plastomer (claim 48). Furthermore, the purported modification of Tsou to somehow extract the specific combination of components and properties clearly involves impermissible hindsight reconstruction, using Applicant's own disclosure to selectively pick and choose the claimed species of combination from an extremely

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broad genus of possible combinations. Tsou does not teach, show, or suggest a composition suitable for an air barrier consisting essentially of an elastomer, processing oil, plastomer and secondary blend rubber which can be a natural rubber, wherein the plastomer is a copolymer of ethylene derived units and C<sub>3</sub> to C<sub>10</sub>  $\alpha$ -olefin derived units, has a density of less than 0.915 g/cm<sup>3</sup>, a brittleness value of less than -41.0°C, a Shore A Hardness at 25°C of less than 50 and an Adhesion to Carcass value of greater than 4 N/mm, wherein naphthenic and aromatic processing oils are substantially absent from the composition, as recited in claim 1 and those dependent therefrom. Similar distinguishing limitations are seen in the specific parameters of claims 24 and 48.

Indeed, Tsou teaches explicitly at (column/line in US 6,875,813) 11/53-55 that the oil level should be reduced in order to improve air impermeability in air barrier applications, recognizing that there is a trade off between processability/plasticization on the one hand (more oil) and air impermeability on the other (more oil is undesirably more permeable). Tsou reiterates the prior art understanding that oils, as well as plastomers and natural rubber, all tend to adversely impact air impermeability. All of the Tsou data in the examples are based on paraffinic processing oil. Column 6, line 56 through column 7, line 5, makes clear that Tsou teaches replacement of some of the processing oil using the plastomer instead, and that the barrier improvement comes from using less oil as a result, not more. Polybutene is at best indicated in Tsou to be equivalent to FLEXON 876, and no guidance is provided as to how much of the FLEXON 876 should be replaced, e.g. partially or entirely. Tsou provides no suggestion that increased polybutene or any other processing oil would favorably reduce permeability; to the contrary, Tsou explicitly teaches away by stating that oils are generically adverse to permeability and improvements are to be obtained by eliminated or reducing its use, not by using it to improve (reduce) permeability. See column 6, lines 58-63.

Comparing the data in Table 5 of Tsou, the air permeability is worse (increased) when natural rubber is added (sample blend 2) and when plastomer is added (sample blends 3-6) to a stock blend based on paraffinic processing oil. See also column 1, lines 42-46. This clearly teaches away from applicant's claims 12 and 48.

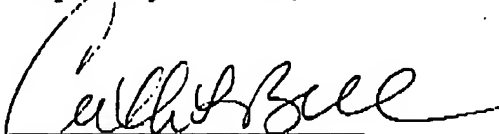
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Applicant unexpectedly discovered that the widespread understanding in the art was incorrect when employing a combination of plastomer with processing oils that are not aromatic or naphthenic, in a butyl type rubber that can even also include a natural rubber blend component (see claims 1, 12, 35-36 and 48 for the unexpected ability to include natural rubber, compare Tsou sample blend 2). In Table 6 in the specification, the combination of NR/polyisobutylene/EXACT plastomer/PARAPOL polybutene oil in composition 5 is dramatically and quite unexpectedly reduced compared to the plastomer alone (compositions 3 and 4) and the plastomer/naphthenic oil combination (composition 2).

For reasons discussed above, Tsou does not teach, show or suggest the claimed invention as amended and therefore, none of applicant's claims are anticipated by or obvious over the claims of Tsou. Accordingly, a rejection on the grounds of nonstatutory obviousness-type double patenting should be withdrawn. Entry of the amendment, withdrawal of the rejection and allowance of the claims are respectfully requested.

Having addressed all issues set out in the office action, Applicant respectfully submits that the pending claims are now in condition for allowance. Please charge all charges with respect to this Amendment or otherwise, to Deposit Account No. 05-1712 maintained by the Assignee.

Respectfully submitted,



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July 3, 2007

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(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES  
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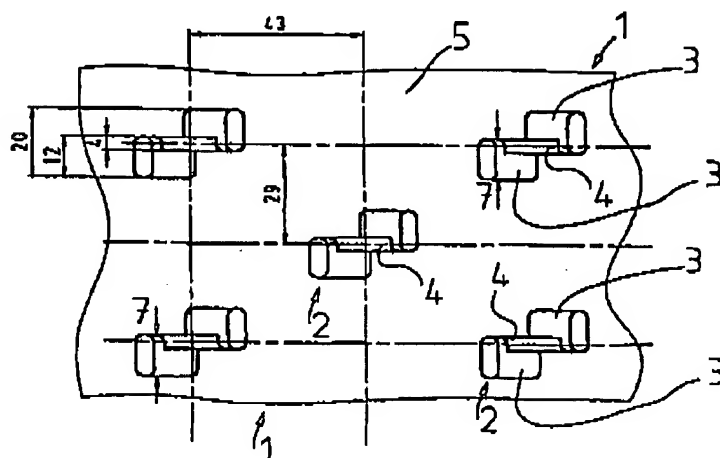
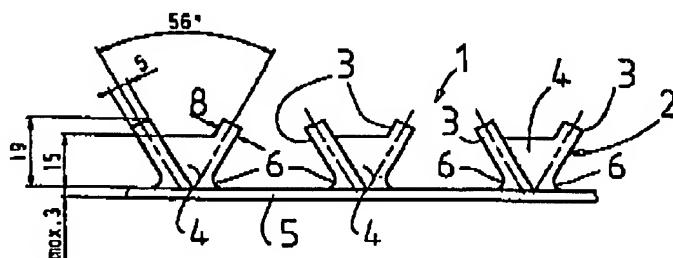
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[Fortsetzung auf der nächsten Seite]

(54) Title: SYNTHETIC PANRI., ESPECIALLY FOR LINING CONCRETE BUILDING COMPONENTS

(54) Bezeichnung: KUNSTSTOFFPLATTE, INSBESONDERE ZUM AUSKLEIDEN VON BETONBAUTEILEN



(57) Abstract: The invention relates to a protective concrete panel with integrated under-cut naps that has an increased resistance to the hydrostatic pressure of ground water. The naps or pairs of wing elements (2) of the synthetic panel (1) are provided with expanded wing elements (3) that can be further expanded in their upper section (3.1). The wing elements (3) are interlinked via a supporting web (4) the height of which amounts to at least 70 % of that of a pair of wing elements. The pairs of wing elements (2) are fastened to the base panel (5) of the napped panel (1) by means of a base that widens into an arched shape.

(57) Zusammenfassung: Es wird eine Betonschutzplatte mit integrierten hinterschnittenen Noppen beschrieben, die gesteigerte Grundwasserdruckfestigkeit aufweist. Die Noppen oder Flügelementenpaare (2) der Kunststoffplatte (1) weisen verspreizte Flügelemente (3) auf, die sich ihrem oberen Bereich (3.1) noch weiter aufspreizen können. Die Flügelemente (3) sind mit einem Stützsteig (4) miteinander verbunden, dessen Höhe mindestens 70 % der eines Flügelementenpaares beträgt. Die Flügelementenpaare (2) sind über einen bodenrinnig erweiterten Fuss an der Grundplatte (5) der Noppenplatte (1) befestigt.

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